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Engler, Jr.

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[54] **FLOATABLE ASSEMBLY FOR SWIMMING POOLS**

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[73] Assignee: **E D F Products, Inc.**, Phoenix, Ariz.

[21] Appl. No.: **345,248**

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[51] **Int. Cl.**[6] **A45B 23/00**

[52] **U.S. Cl.** **441/1**; 135/16; 472/128

[58] **Field of Search** 135/15.1, 16; 472/128, 472/129; 441/1, 28, 29, 30, 35, 38, 22

[56] **References Cited**

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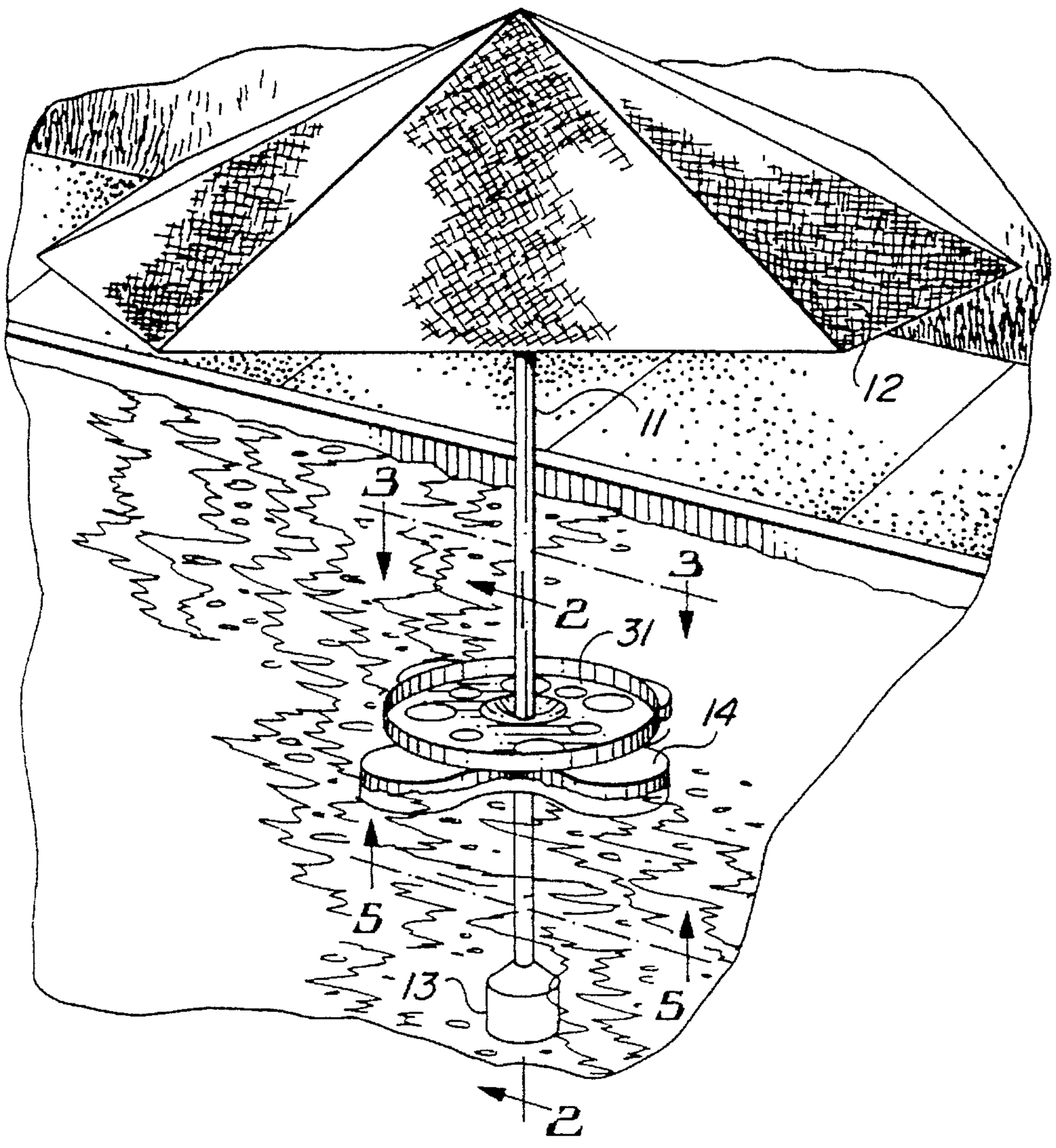
Primary Examiner—Stephen Avila
Attorney, Agent, or Firm—Cahill, Sutton & Thomas

[57] **ABSTRACT**

An assembly is provided which includes a generally upright, substantially rigid pole having upper and lower ends. A weight is connected to the lower end of the pole. A float surrounding the pole intermediate the ends of the latter is connected to the pole by a universal coupling which permits the float to move with wave action while the pole remains substantially stationary. The upper end of the pole may carry a sunshade or game apparatus.

10 Claims, 3 Drawing Sheets



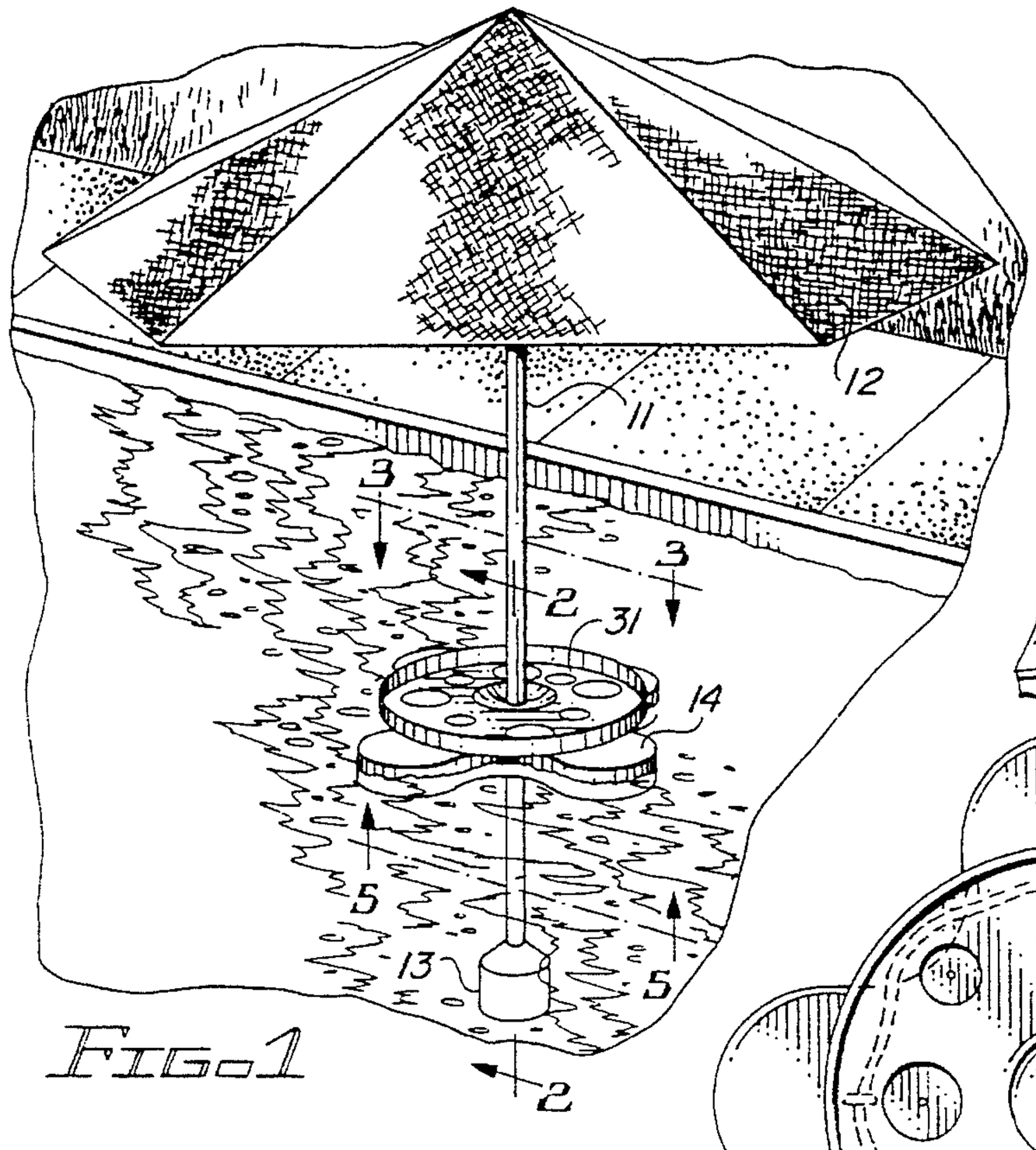


FIG-1

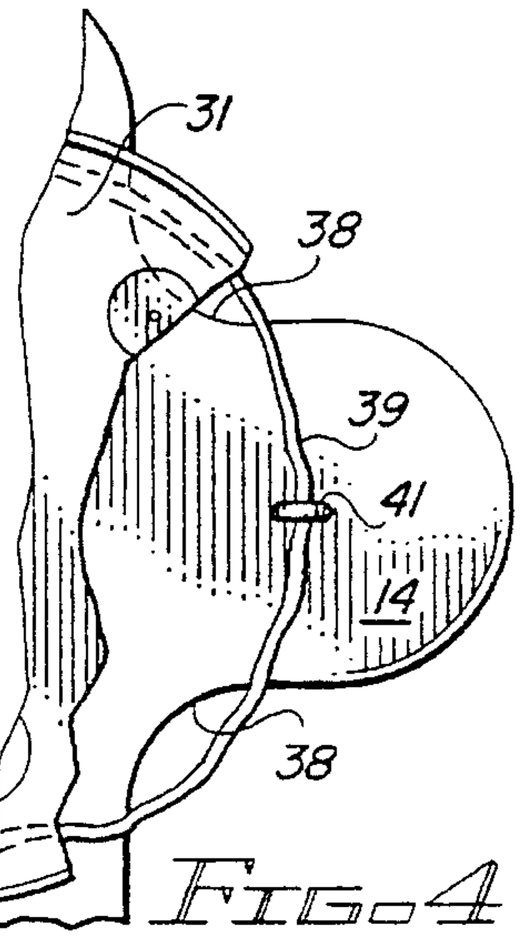


FIG-4

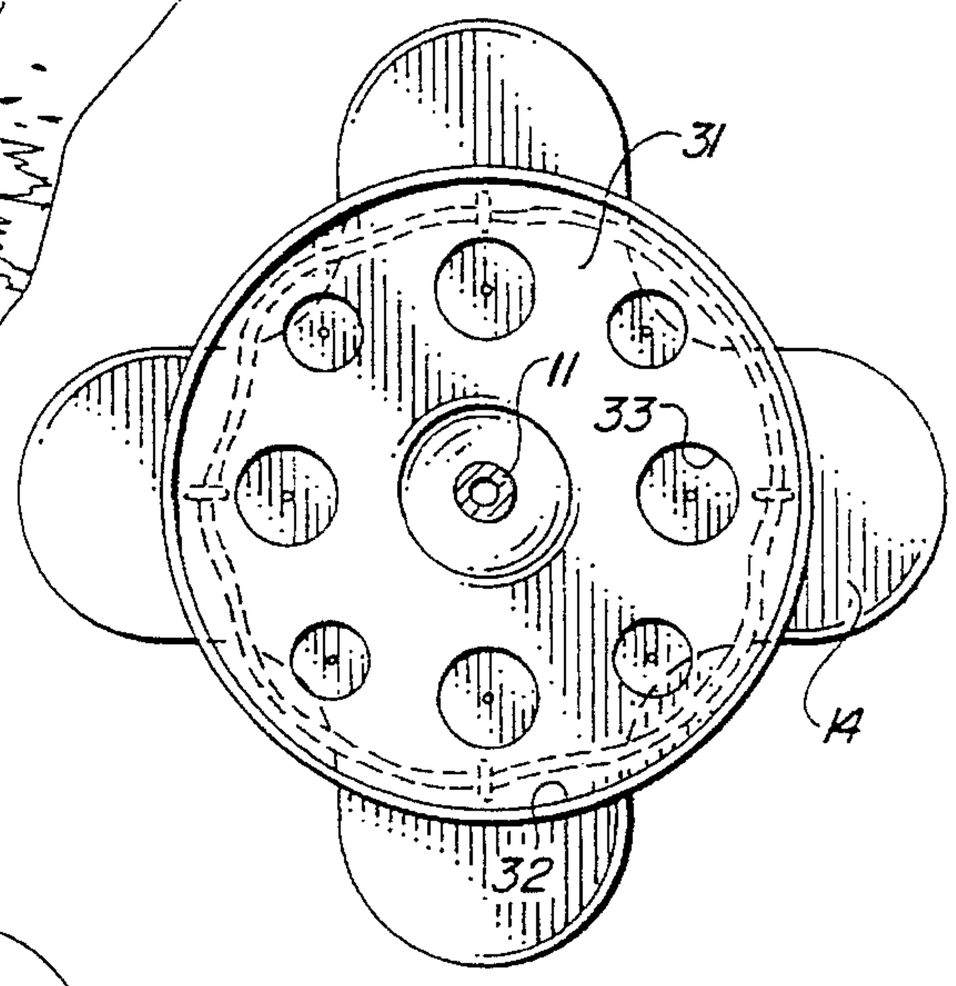


FIG-3

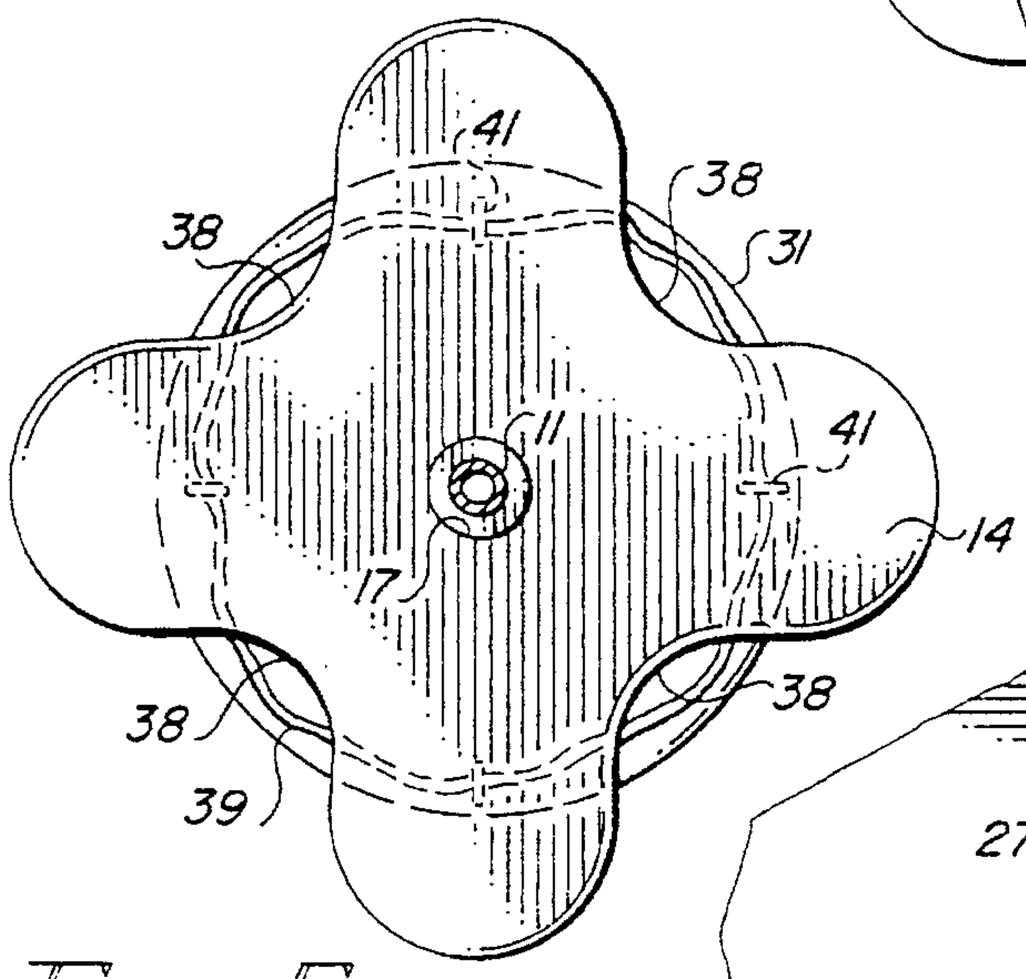


FIG-5

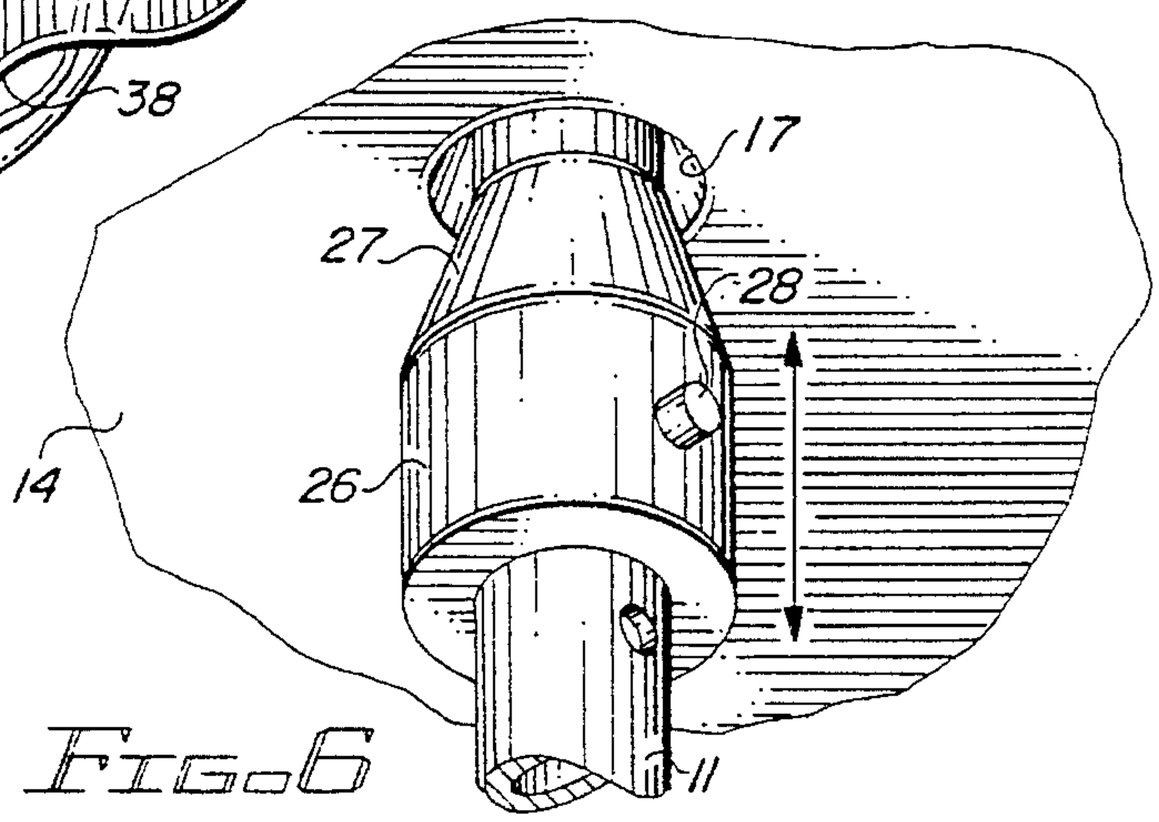


FIG-6

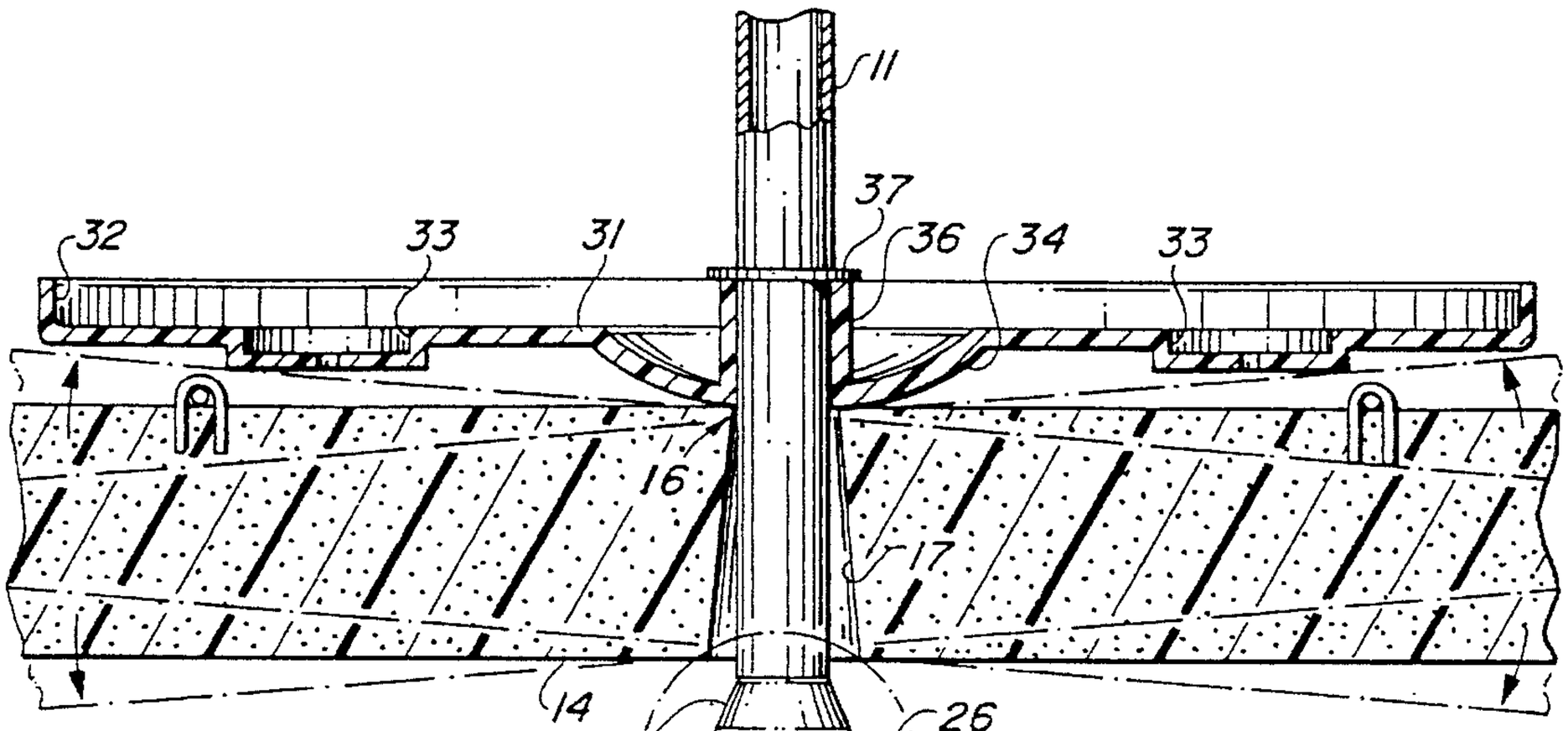


FIG-2

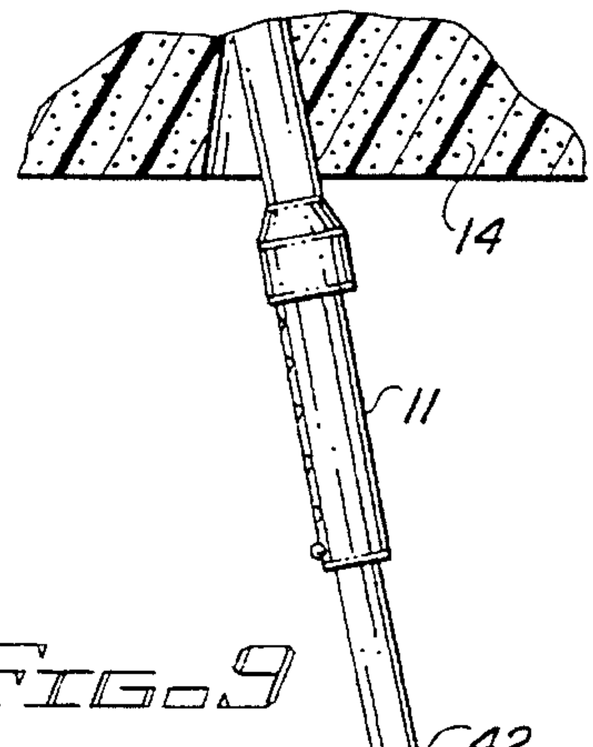


FIG-9

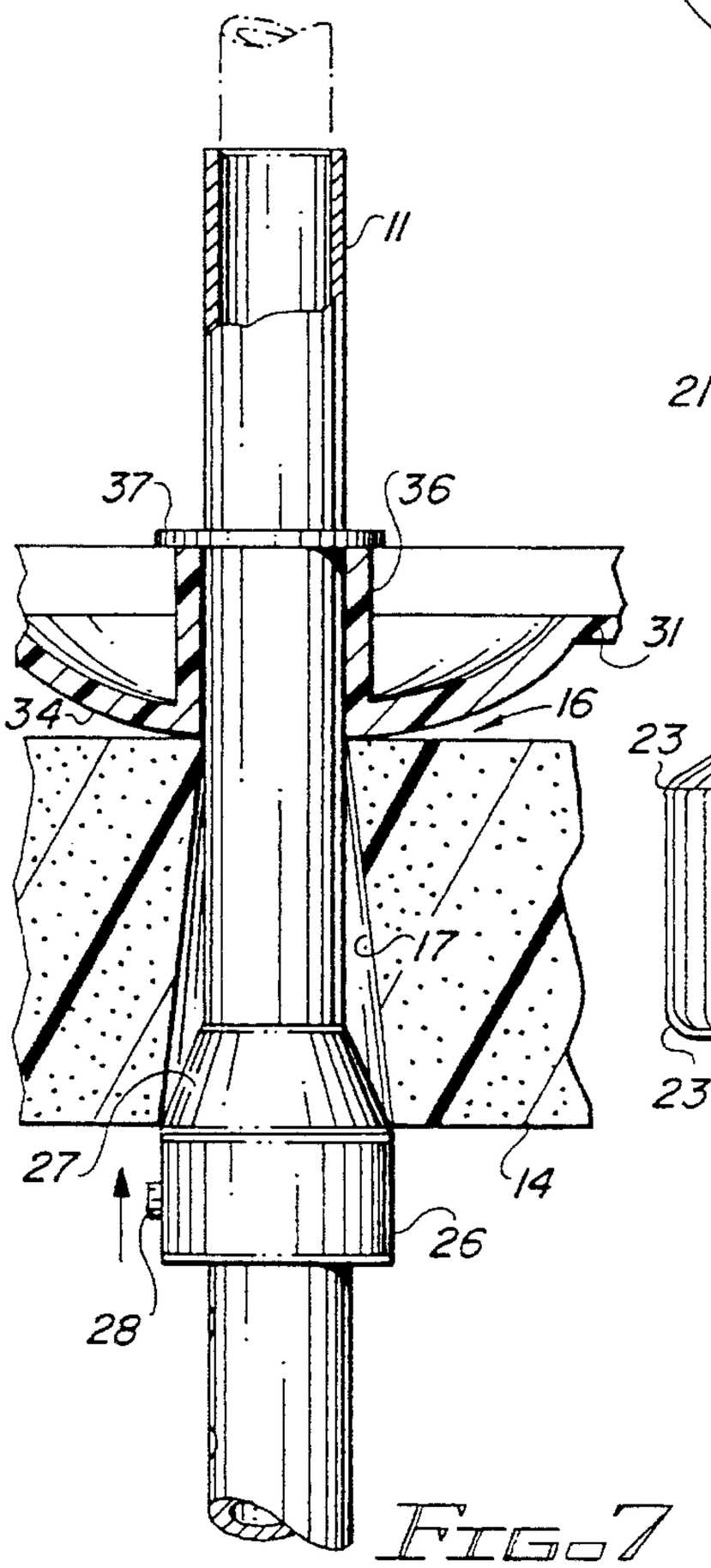


FIG-7

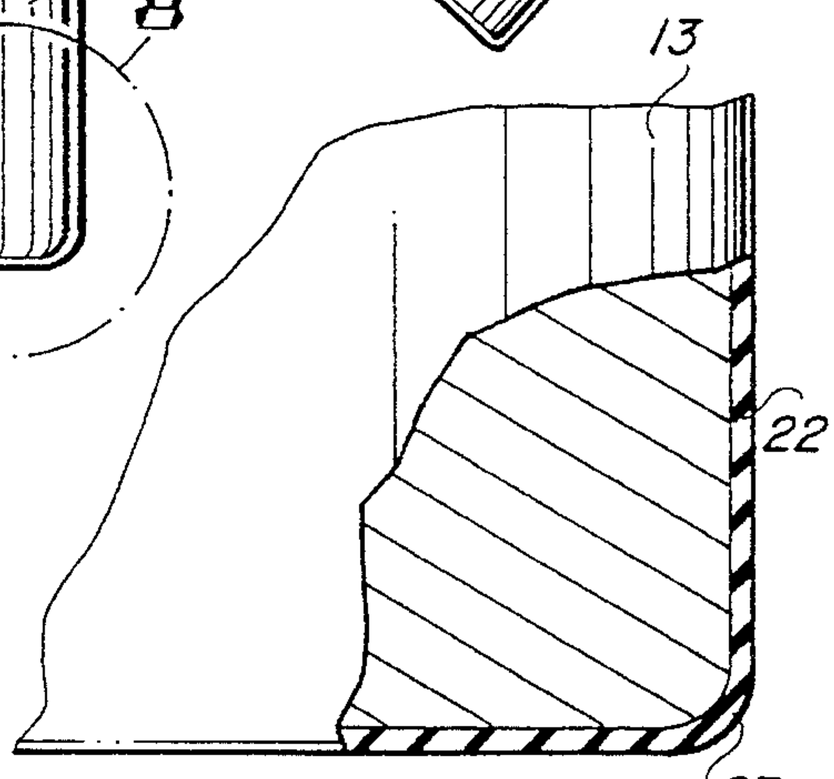


FIG-8

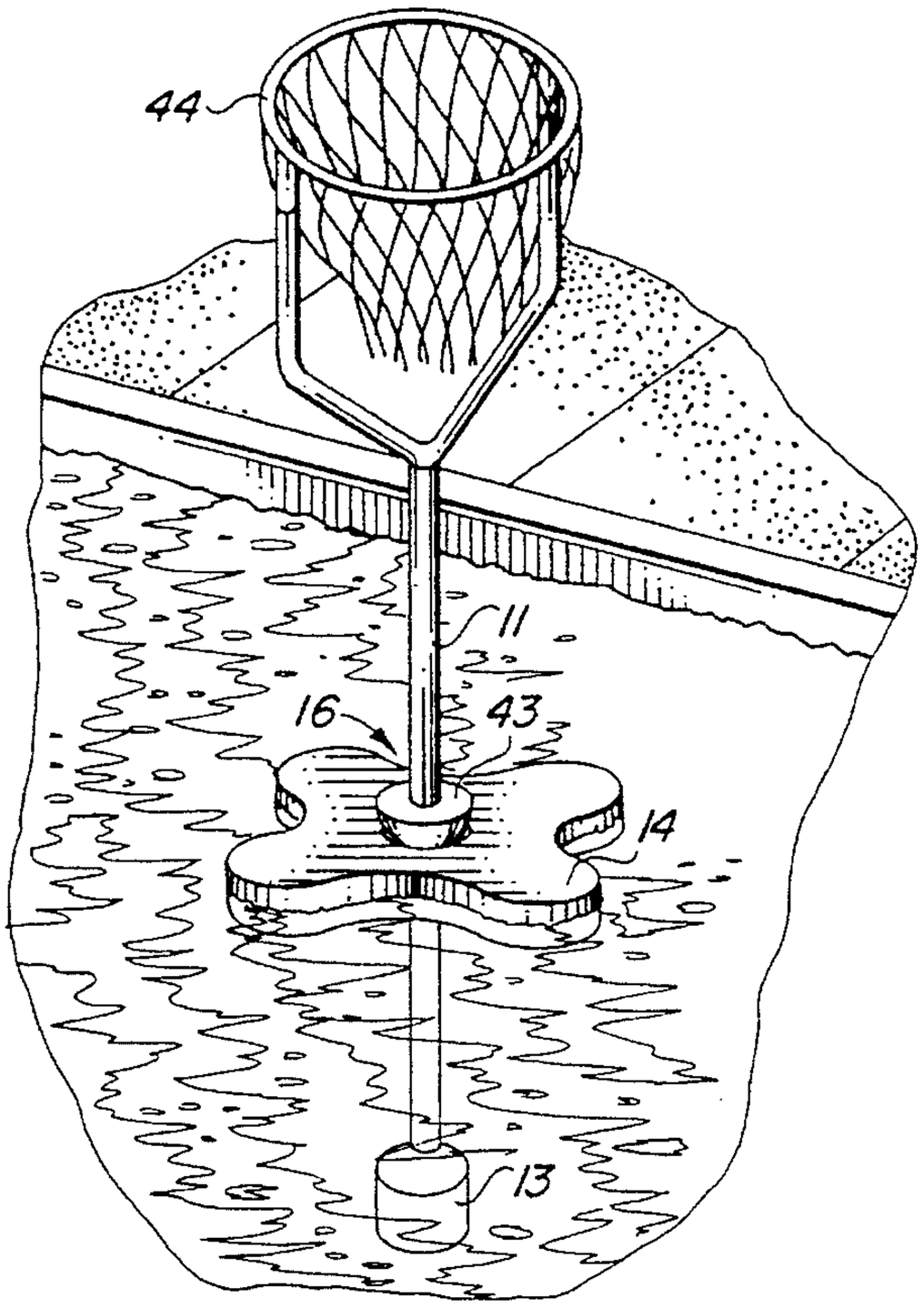


FIG. 10

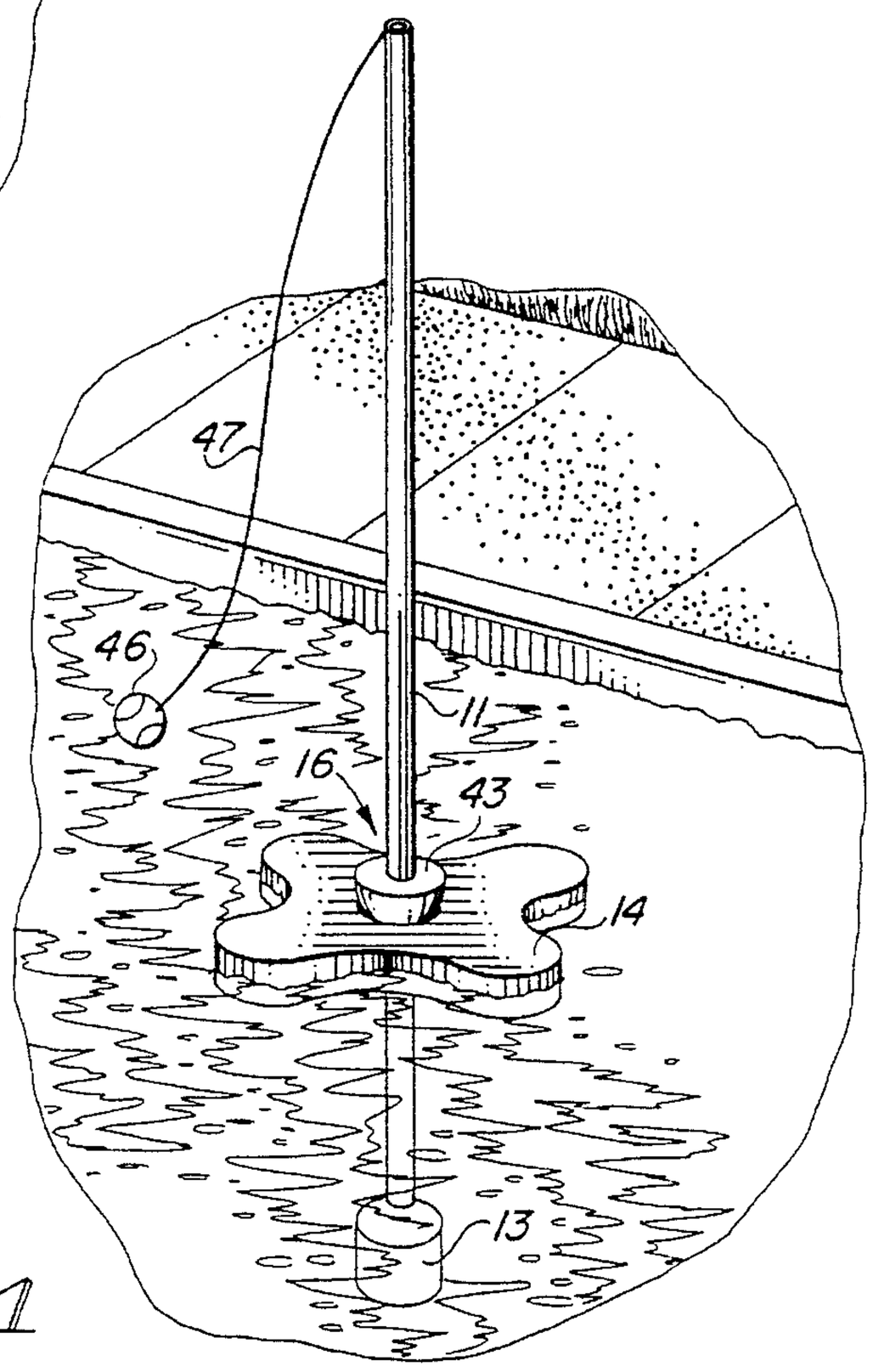


FIG. 11

FLOATABLE ASSEMBLY FOR SWIMMING POOLS

TECHNICAL FIELD

This invention is concerned with enhancing the recreational usage of swimming pools.

BACKGROUND ART

The desirability of providing a floating sunshade in an outdoor swimming pool for the comfort of users of the pool has been recognized by others. For example, Donna R. MacLeod in her U.S. Pat. No. 5,299,588, granted Apr. 5, 1994, for "FLOATABLE SUNSHADE ASSEMBLY" discloses several embodiments of sunshades for this purpose.

In each of her embodiments, MacLeod mounts the sunshade rigidly on the float component of the assembly. As a result, the sunshade moves about erratically when the float moves with wave action in the pool.

MacLeod further envisioned the use of the float portion of the assembly as a receptacle for beverage containers and loose items, such as sunglasses and suntan lotion containers. But, again, wave action on the float interferes with use of the float as a receptacle.

There continues to be a need for an assembly which affords stability for articles associated with the assembly, such as a sunshade, a beverage tray or game apparatus.

DISCLOSURE OF THE INVENTION

This invention envisions an assembly comprising a generally upright, substantially rigid pole which extends down through a float to a stabilizing weight attached to the lower end of the pole. A pivotal connection between the float and the pole provides for universal tilting movement of the float with respect to the pole. Thus, wave action on the pool surface causing movement of the float does not disturb the position of the pole and articles associated with the pole.

The invention also contemplates the provision of a sunshade connected to the pole at its upper end and a beverage tray connected to the pole above the float so the sunshade and the tray are stable, notwithstanding tilting movement of the float.

The invention further contemplates mounting game apparatus on the pole.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is described in greater detail hereinafter by reference to the accompanying drawings, wherein:

FIG. **1** is a perspective view of the sunshade assembly of this invention, shown floating in a swimming pool and supporting a sunshade and a beverage tray;

FIG. **2** is a vertical sectional view through the assembly taken generally as indicated by line **2—2** in FIG. **1**;

FIG. **3** is a horizontal sectional view taken generally as indicated by line **3—3** in FIG. **1**;

FIG. **4** is a fragmentary view similar to FIG. **3** with portions broken away to show a handling rope for the assembly;

FIG. **5** is a horizontal sectional view taken generally as indicated by line **5—5** in FIG. **1**;

FIG. **6** is an enlarged perspective view of a stability adjusting collar; this view is of the region within circle **6** in FIG. **2**;

FIG. **7** is an enlarged sectional view through the stability adjustment mechanism shown in FIGS. **2** and **6**;

FIG. **8** is an enlarged fragmentary view of a weight employed in the assembly; this view is of the region within circle **8** in FIG. **2**;

FIG. **9** is an elevational view illustrating a weight position adjustment feature of the invention;

FIG. **10** is a perspective view of the assembly holding a basketball game hoop; and

FIG. **11** is a perspective view of the assembly supporting a tether tennis game ball.

BEST MODES FOR CARRYING OUT THE INVENTION

Referring particularly to FIG. **1**, the assembly of this embodiment of the invention comprises four principal components, namely, a generally upright, rigid pole **11**, a sunshade **12** carried by the upper end of the pole, a stabilizing weight **13** affixed to the lower end of the pole, and a float **14** surrounding an intermediate region of the pole.

Pole **11** is preferably formed of metal tubing and may have telescoping sections for purposes hereinafter described. Sunshade **12** is preferably of the collapsible type commonly used to shade circular outdoor tables. Construction of the sunshade **12** is conventional and well understood with a fabric or plastic cover supported by radially extending movable ribs (not shown).

Float **14** is preferably fabricated from a closed-pore, cellular material such as expanded polystyrene or foamed polyurethane. If desired, the outer surface of the float **14** may be provided with a waterproof coating to resist water penetration.

Float **14** loosely surrounds pole **11** and the pole is positioned on the float by a universal pivotal connection indicated generally by reference numeral **16** in FIGS. **2** and **7**. The opening **17** in a central region of float **14** through which pole **11** passes is tapered, i.e., flared outwardly and downwardly as shown in those figures. The combination of the universal pivotal connection **16** and the tapered opening **17** permits the float **14** to move and tilt under wave action while the pole **11** remains substantially upright. See the arrows and dot and dash outlines of the float **14** in FIG. **2**.

Pole **11** and sunshade **12** thereon remain substantially upright because of the force from stabilizer weight **13** acting downwardly on pole **11**. The farther below the pivotal connection **16** the weight **13** is located, the greater the moment of inertia exerted by the weight **13** to hold pole **11** and sunshade **12** upright. The pole **11** may, if desired, be provided with a lower section **18** which slidingly telescopes within an intermediate section **19** of the pole to permit the position of the weight relative the connection **16** to be adjusted. A stop button **21** on the lower pole section **18** provides for adjustably locking the lower pole section in different positions relative the intermediate section **19**.

When the sunshade assembly is installed in deep water, the weight **13** is preferably lowered to a maximum distance below the pivotal connection **16** with float **14**. When the assembly is used in shallow water, the weight **13** may be raised so that it does not contact the pool bottom.

Weight **13** is preferably made from heavy metal coated with a soft, rubber-like coating **22** (FIG. **5**) to prevent injury to a swimmer who comes into contact with the weight. In addition, the weight **13** is preferably cylindrical in configuration with rounded corners **23** and a tapered neck **24** to

allow cleaning appliances in the pool to pass smoothly around and over the weight.

Under certain conditions, it may be desirable to limit the relative tilting motion between the float **14** and the pole **11**. This is especially true when high winds occur which tend to blow the sunshade **12** over. The pole **11** has a stability adjusting collar **26** slidingly positioned therein just beneath the lower surface of float **14**. Collar **26** has a tapered upper surface **27** which is adapted to enter the lower end of float opening **17**. Depending upon the extent to which collar surface **27** is moved into float opening **17**, relative tilting movement between the float **14** and the pole **11** is either limited or entirely prevented (see FIG. **7**). A set screw **28** in the body of the collar **26** maintains the collar in the position selected by the user of the assembly.

Optionally, the sunshade assembly may include a beverage tray **31** carried by pole **11** just above float **14**. The beverage tray **31** is preferably molded or vacuum formed from a dense plastic material to a circular configuration with an upstanding outer rim **32**. The tray **31** may also have recesses **33** formed therein for receiving and holding beverage containers.

In accordance with this invention, the beverage tray **31** may be configured to provide the universal pivotal connection **16** between the float **14** and the pole **11**. As best shown in FIGS. **2** and **7**, the central region of tray **31** may have formed therein a downwardly projecting semi-spherical protuberance **34** adapted to contact the upper surface of float **14**. An upwardly projecting sleeve **36** formed in the center of tray **31** grips pole **11** and abuts a collar **37** affixed to the pole and transmits the weight of the pole **11**, the sunshade **12** and the weight **13** to the float **14**. The semi-spherical protuberance **34** on the underside of the tray **31** acts as a bearing to permit universal tilting motion of the float relative to the pole **11**. Of course, a similar universal connection could be provided apart from or without the beverage tray **31**, as described hereinafter.

If the beverage tray **31** is included in the assembly, then it is desirable to configure the plane of the float **14** in a cruciform or other configuration to provide reduced diameter regions **38** in the float to permit a swimmer to approach and have access to the beverage tray.

Another optional feature of the sunshade assembly of this invention is a loop of handling rope **39** laid across the top surface of float **14**. The rope **39** may be affixed to the float at intervals by suitable means, such as staples **41**. Rope **39** may be grasped and pulled to move the sunshade assembly from one location to another or enable a swimmer to hold himself or herself beneath the sunshade **12**.

Another optional feature which may be incorporated into the assembly is an adjustable connection **42** between weight **13** and pole **11** (see FIG. **9**). The adjustable connection **42** permits the centroid of the weight **13** to be swung out of alignment with the axis of pole **11**. Because the centroid of the weight **13** will gravitate to a position directly beneath the pivotal connection **16** between pole **11** and the float **14** when the weight is moved out of alignment with the pole, a cant or tilt is imparted to the pole, causing the sunshade to tilt to one side. This positioning of the sunshade may be desirable when the sun is lower to the horizon and directing its rays at a shallow angle to the pool.

FIG. **10** illustrates the floatable assembly being employed to support and position a game apparatus. Again, the assembly comprises a generally upright rigid pole **11**, a weight **13** connected to the lower end of the pole, and a float **14** loosely surrounding an intermediate section of the pole.

A universal pivotal connection **16** is provided in this assembly by a collar **43** affixed to the pole **11**. The collar **43** has a semi-spherical lower surface for contacting the top surface of the float **14**.

Carried at the upper end of pole **11** is a basketball hoop **44**. The assembly is capable of supporting the basketball hoop in a fairly stable position, notwithstanding wave action on the float **14**.

FIG. **11** illustrates the floatable assembly being employed to support a ball **46** from a tether **47** connected to the upper end of pole **11**. This assembly is used in playing the game of tetherball.

From the foregoing, it should be apparent that this invention provides a sunshade assembly with a variety of advantageous features.

What is claimed is:

1. A floatable assembly comprising a substantially rigid support pole having upper and lower ends, a stabilizing weight affixed directly to the lower end of said pole, a float loosely surrounding said pole, a pivot member carried by said pole intermediate the ends of the pole and contacting a central region of said float for providing a universal pivotal connection between said float and said pole whereby said float is permitted to tilt under wave action while said pole remains substantially upright and a useful article connected to the upper end of said pole.

2. The assembly of claim **1**, further comprising means for limiting movement of said float relative to said pole.

3. The assembly of claim **1**, further characterized in that said useful article is a sunshade and a beverage tray is mounted on said pole above said float.

4. The assembly of claim **1**, further comprising means for adjusting the length of said pole between said stabilizing weight and said universal pivotal connection.

5. The assembly of claim **1**, further characterized in that said useful article is game apparatus.

6. A floatable sunshade assembly comprising a generally upright, substantially rigid support pole having upper and lower ends, a sunshaded mounted on the upper end of said pole, a stabilizing weight affixed to the lower end of said pole, a beverage tray mounted stationary on said pole intermediate the ends of the pole, and a float loosely surrounding said pole beneath said beverage tray, said beverage tray having a semi-spherical projection on its lower surface surrounding said pole for contacting said float and permitting universal movement of the float relative the pole.

7. The sunshade assembly of claim **6**, further comprising means for limiting movement of said float relative to said pole.

8. The sunshade assembly of claim **6**, further characterized in that said float has a cruciform configuration in plan to facilitate access to said tray.

9. The sunshade assembly of claim **6**, further comprising means for adjusting the distance between the weight and the float.

10. The sunshade assembly of claim **6**, further characterized in that said pole has an axis and means are provided for adjusting the position of the weight in relation of the axis of the pole.

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